



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,390	01/15/2004	Frederick Paul Renken	STL11265	5446

73462

7590

06/11/2008

Fellers, Snider, Blankenship, Bailey & Tippens, PC  
(Seagate Technology LLC)

100 North Broadway, Suite 1700  
Oklahoma City, OK 73102-8820

EXAMINER

KAYRISH, MATTHEW

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/758,390

**Applicant(s)**

RENKEN ET AL.

**Examiner**

MATTHEW G. KAYRISH

**Art Unit**

2627

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/15/2004 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 3/31/2008 have been fully considered but they are moot in view of the new grounds of rejection.

Regarding the arguments that Davis does not disclose the subject matter of the newly added claims, the examiner agrees. However, a new rejection is made in view of Takagi et al (US Patent Number 6798618), in view of Wittig et al (US PG-Pub 2002/0141114).

Claims 21-29 have been canceled. Claims 30-49 have been added.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 30, 32-34, 36, 37, 39-41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Takagi et al (US Patent Number 6798618).

Regarding claims 30 and 37, Takagi discloses:

A head suspension comprising:

A load beam region (figure 6, item 5A) comprising a substantially planar portion (figure 6) bounded on opposing sides by respective first and second stiffener rails (figure 6, item 13);

A bend region (figure 6, item 51) comprising first and second strut members (figure 6, item 53) extending from said load beam region (figure 6);

A mounting region (figure 6, item 7A) coupled to the first and second strut members (figure 6) to form a central aperture (figure 6, aperture is unlabeled) bounded by the mounting region, the first and second strut members and the planar portion of the load beam region (figure 6); and

A damping material (figure 6, item 47; column 6, lines 15-29) secured to the planar portion of the load beam region (column 6, lines 20-29) between said first and second rails (figure 6), said material partially spanning the central aperture (figure 6).

Regarding claims 32 and 39, Takagi discloses the features of base claims 30 and 37, as stated in the 102 rejection above, and further discloses:

A head suspended at one end of the planar portion of the load beam region opposite the mounting region (figure 7, item 39).

Regarding claims 33 and 40, Takagi discloses the features of base claims 30 and 37, as stated in the 102 rejection above, and further discloses:

Wherein the mounting region is coupled to a rigid actuator arm (figure 7).

Regarding claims 34 and 41, Takagi discloses the features of base claims 30 and 37, as stated in the 102 rejection above, and further discloses:

Wherein the damping material is secured to the planar portion of the load beam region (figure 7, item 47 spans aperture and is attached to the load beam region and the mounting region) symmetrically across a longitudinal axis which bisects the planar portion along a length thereof and terminates at a data transducer supported at a distal end thereof figure 7).

Regarding claims 36 and 43, Takagi discloses the features of base claims 30 and 37, as stated in the 102 rejection above, and further discloses:

At least one mass adjustment area which extends through the planar portion of the load beam region (figure 6, items 49).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 31, 35, 38, 42 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al, in view of Wittig et al.

Regarding claims 31 and 38, Takagi discloses the features of base claim 30, as stated in the 102 rejection above, but fails to specifically disclose:

A damping material support structure which partially supports said layer, the dampening material support structure comprising a cantilever projection which extends from the planar portion of the load beam region into the central aperture between the first and second struts.

Wittig discloses:

A head suspension comprising:

A load beam region (figure 3A, item 52) comprising a substantially planar portion (figure 3A, item 64);

A mounting region (figure 3A, item 62) coupled to the first and second strut members (figure 3B, item 62 on right and left) to form a central aperture (figure 3A, aperture is unlabeled) bounded by the mounting region, the first and second strut members and the planar portion of the load beam region (figure 3A); and

A damping material (figure 3A, items 88 & 90) secured to the planar portion of the load beam region between said first and second rails, said material partially spanning the central aperture (figure 3B, items 88 & 90 span the cutout);

A damping material support structure (figure 3A, item 54) which partially supports said layer (figure 3B), the dampening material support structure comprising a cantilever

projection (figure 3A, item 54 projects like a cantilever) which extends from the planar portion of the load beam region into the central aperture between the first and second struts (figure 3A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the load beam of Takagi with a damping material support structure, as taught by Wittig, because this would work with the visco-elastic material to help reduce the vibration, as described in paragraphs 40 & 41.

Regarding claims 35 and 42, Takagi discloses the features of base claims 30 and 37, as stated in the 102 rejection above, but fails to specifically disclose:

Wherein the damping material spans a plurality of isolation channels adjacent to the damping material support structure.

Wittig discloses:

Wherein the damping material spans a plurality of isolation channels adjacent to the damping material support structure (figure 3A, the cutout is in the form of channels which isolates item 54 from the load beam).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide isolation channels surrounding the damper assembly of Takagi, as taught by Wittig, because this will help to reduce the sway mode of the suspension, as stated in paragraph 37.

Regarding claim 44, Takagi and Wittig disclose the features of claim 44 that are in common with those previously disclosed in claims 30, 31 and 35, as stated in the 102 and 103 rejections above, therefore, claim 44 is met on the same basis.

Regarding claim 45, Takagi and Wittig disclose the features of base claim 44, as stated in the 103 rejection above, and further disclose the features of claim 45 that are in common with those previously disclosed in claim 32, as stated in the 102 rejection above, therefore, claim 45 is met on the same basis.

Regarding claim 46, Takagi and Wittig disclose the features of base claim 44, as stated in the 103 rejection above, and further disclose the features of claim 46 that are in common with those previously disclosed in claim 33, as stated in the 102 rejection above, therefore, claim 46 is met on the same basis.

Regarding claim 47, Takagi and Wittig disclose the features of base claim 44, as stated in the 103 rejection above, and further disclose the features of claim 47 that are in common with those previously disclosed in claim 34, as stated in the 102 rejection above, therefore, claim 47 is met on the same basis.

Regarding claim 48, Takagi and Wittig disclose the features of base claim 44, as stated in the 103 rejection above, and further disclose the features of claim 48 that are in common with those previously disclosed in claim 35, as stated in the 103 rejection above, therefore, claim 48 is met on the same basis.

Regarding claim 49, Takagi and Wittig disclose the features of base claim 44, as stated in the 103 rejection above, and further disclose the features of claim 49 that are in common with those previously disclosed in claim 36, as stated in the 102 rejection above, therefore, claim 49 is met on the same basis.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW G. KAYRISH whose telephone number is (571)272-4220. The examiner can normally be reached on 8am - 5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew G. Kayrish

6/6/2008

/M. G. K./

Examiner, Art Unit 2627

*/Brian E. Miller/*

**Primary Examiner, Art Unit 2627**